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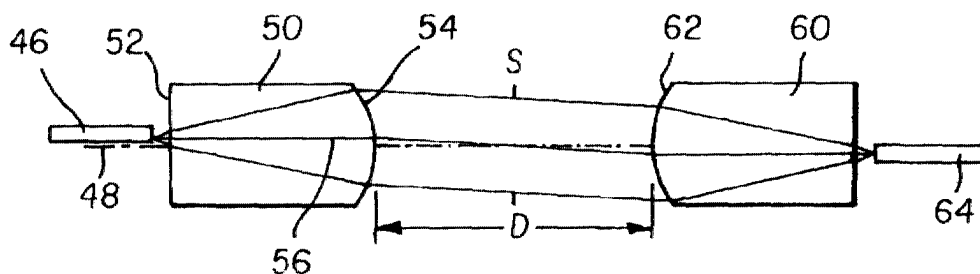   **Rochester, New York 14650-2201 (US)**
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(54) **Coupling optical fibers with aspheric collimator lenses**

(57)   Apparatus for coupling light from one optical fiber into another includes a pair of molded plano-convex lenses. Each lens has an aspheric surface and a flat surface. The aspheric surfaces have a conic constant between -0.6 and -0.3, where the conic constant is chosen so as to give optimal coupling efficiency from a collimated beam input on the aspheric surface into an optical fiber located near the flat surface. The pair of lenses are separated by a distance approximately equal to the sum of the focal lengths of the lenses. Light from an optical fiber placed near the focal plane of one of the pair of lenses is focused into an optical fiber placed near the focal plane of the other of the pair of lenses.

FIG. 9

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European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 01 20 2250

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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Y	* column 1, line 35 - line 62 * * column 3, line 5 - line 52; figures 1C,2-4 *	8	
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
MUNICH	22 April 2002	THEOPISTOU, P

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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